Internal
C0070038
#3467
OK

From: Priscilla Burton
To: OGMCOAL
Date: 3/3/2010 5:10 PM
Subject: Internal 0070038 Willow Creek Crandall Canyon #2 Shaft Phase I bond release
Attachments: 0026.pdf; 0027.pdf

>>> Dennis Ware <dware@alphanr.com> Monday, March 01, 2010 6:12 PM >>>
See emails below.

From: Daron Haddock [mailto:daronhaddock@utah.gov]
Sent: Monday, March 01, 2010 5:10 PM
To: Dennis Ware; Wayne Hedberg
Cc: Pete Hess
Subject: Re: Crandall Canyon #2 Shaft

Denise,

I have attached a couple of email documents that were in our files. These seem to be about the extent of documentation for use of the sediment pond #2 in the Crandall Canyon at the time. This seems to be water under the bridge (no pun intended) at this time. If the site has been reclaimed it probably doesn't matter that we may not have everything documented now. I hope this information helps.

Daron

>>> Wayne Hedberg 3/1/2010 4:44 PM >>>

Dennis,

I do recall something about that occurrence. However, I purged all my archived coal program records about a year ago, thinking I wouldn't need them again. I know I had a sub-folder with many Crandall Canyon shaft emails, but it appears to be gone now. Have you talked with Pete Hess? Perhaps he saved a copy? If it is a critical requirement, perhaps our IT department might be able to go back and recover those email records from that time period, assuming they were backed up on the system. I'm not sure of their retention period though. Sorry I'm not of more help!

Wayne

D. Wayne Hedberg

Environmental Scientist/Project Manager

Utah Division of Oil, Gas & Mining

Abandoned Mine Reclamation Program

1594 W. North Temple, Suite 1210

P.O. Box 145801

S.L.C., Utah 84114-5801

801-538-5286 (direct)

801-359-3940 (fax)

>>> Dennis Ware <dware@alphanr.com> 3/1/2010 2:28 PM >>>

Wayne,

Back in April of 2007 the Division granted an emergency approval to Plateau Mining Corporation/Willow Creek for the construction of a temporary evaporation and settling basin in Crandall Canyon in order to hold water being pumped from the #2 shaft. As part of my Phase I bond release application for Crandall Canyon the Division has requested that I include a copy of the Divisions approval for the construction of the temporary evaporation and settling basin. As I informed you in an email dated November 26, 2007, I lost all historical emails for the period December 1, 2006 thru August 31, 2007. As best as I can estimate you would have provided this approval in late April of 2007. Would you please take a look at your files, email and otherwise, for late April 2007 and see if you can find the Divisions approval document and, if you can, please forward a copy to me.

Thanks,

Dennis Ware

435-650-2951

0026

Document Information Form

Mine Number: C/007/0038

File Name: Willow Creek Mine

To: Dreamy

From:

Person Dennis Hane

Company Alliance Mining Company

Date Received: 4/26/07

Explanation:

Randall Canyon Shaft

info.

cc:

EARTHFAX ENGINEERING, INC.
ENGINEERS / SCIENTISTS

COMPUTED JHS DATE 26 Apr 2007
CHECKED DATE

PMC Crandall Canyon
Settling / Evap Pond Design

Existing ground surface slope (in pond area):

Sta	Distance (ft)	Elev. Diff (ft)	Slope (ft/ft)	
0+00	52	10.4	0.20	
0+50	55	11.0	0.20	
1+00	62	13.4	0.22	Avg = 0.19
1+50	63	12.6	0.20	
2+00	72	11.2	0.16	
2+50	78	11.0	0.14	

Max. est. quantity of water to be stored:

20' diameter shaft
130' of water w/ high TSS content - assumed conditi

$$\text{Volume} = \left(\frac{\pi d^2}{4}\right)(h)$$

$$= \left[\frac{(\pi)(20)^2}{4}\right](130)$$

$$= 40{,}840\ ft^3 \quad (305{,}000\ gal)$$

$$= 1510\ yd^3$$

RECEIVED
APR 26 2007
DIV. OF OIL, GAS & MINING

REGISTERED PROFESSIONAL ENGINEER
No. 166246
RICHARD B. WHITE
26 Apr 2007
STATE OF UTAH

Pond design criteria:

- Excavate into existing soil
- Min 1.5:1 inside slopes
- 1-2' freeboard
- Assume 50' surface width. Calculate required length.

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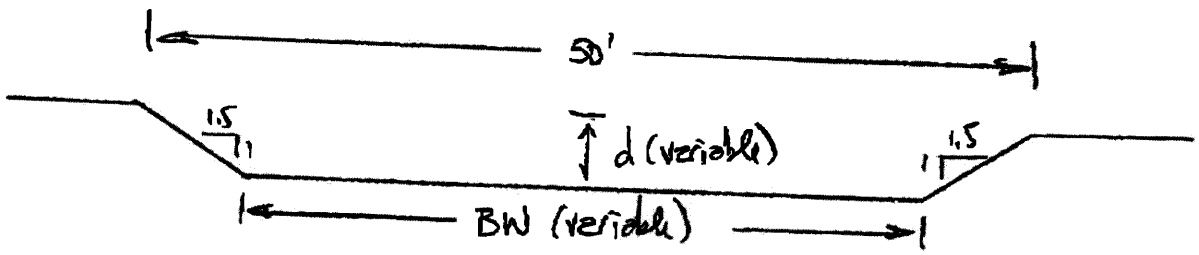
COMPUTED ____ DATE 26 APR 2007
CHECKED ____ DATE ____



Depth (ft)	BW (ft)	Cumulative Volume: Trans Length (ft3/ft of L)	Cumulative Volume: Ends (ft3)	Actual Volumes (Total): For L=50' (ft3)	For L=50' (yd3)	For L=100' (ft3)	For L=100' (yd3)	For L=200' (ft3)	For L=200' (yd3)
1	47	48.5	75.0	2500	92.6	4925	182	9775	362
2	44	94.0	300.0	5000	185	9700	359	19,100	707
3	41	136.5	675.0	7500	278	14,325	531	27,975	1040
4	38	176.0	1200	10,000	370	18,800	696	36,400	1350
5	35	212.5	1875	12,500	463	23,125	856	44,375	1640
6	32	246.0	2700	15,000	556	27,300	1010	51,900	1920
7	29	276.5	3675	17,500	648	31,325	1160	58,975	2180
8	26	304.0	4800	20,000	741	35,200	1300	65,600	2430

Note: L = bottom length of pond

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COMPUTED ___ DATE 4-20-07
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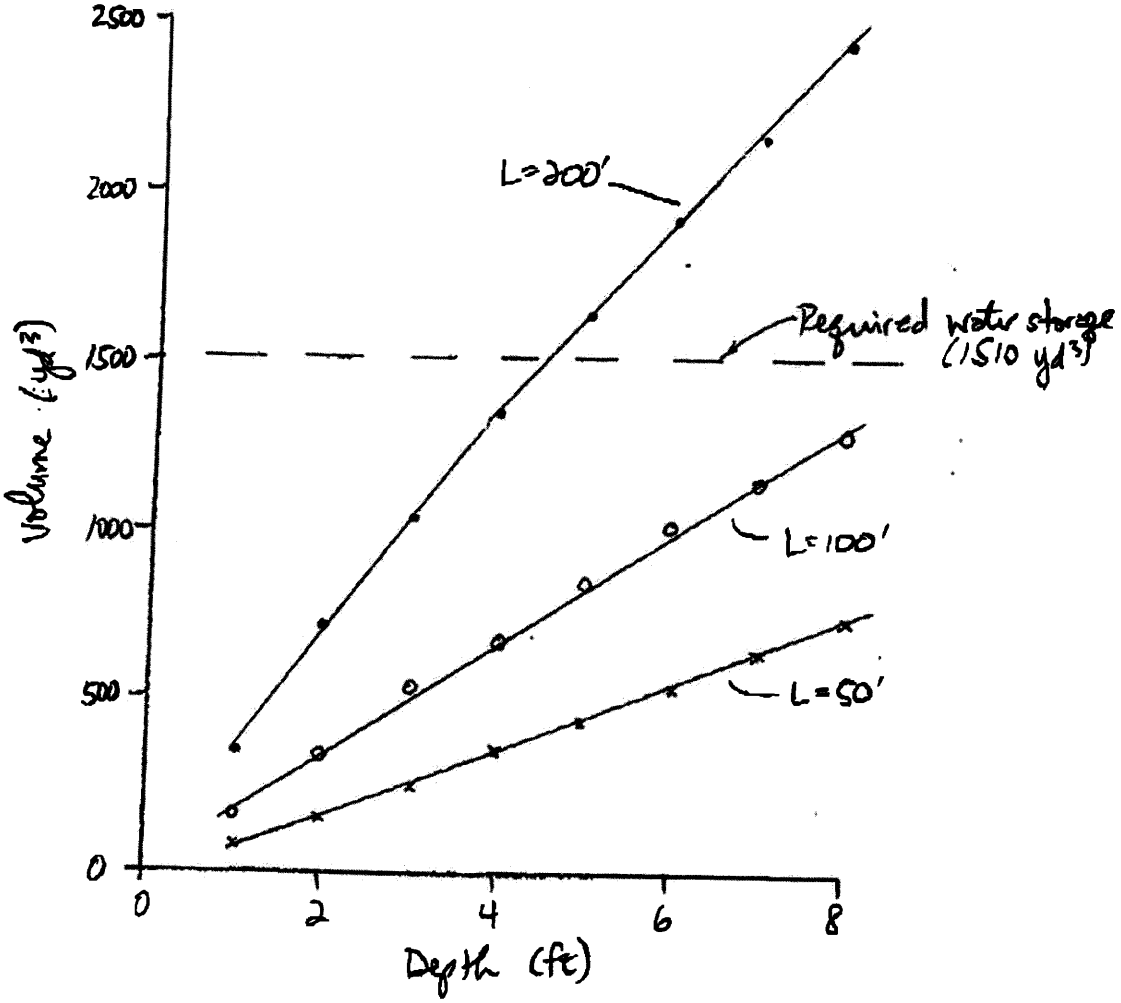
Pond Stage-Capacity Curves



At L= 200', required water storage occurs at d= 4.5'.

For pond constructed at 6' depth (i.e., 1.5' freeboard),

Total surface area = (50 ft)(200 ft + (9)(2) ft)

= (50 ft)(218 ft)

= 10,900 ft²

= 0.25 ac

EARTHTECH ENGINEERING, INC.
ENGINEERS / SCIENTISTS

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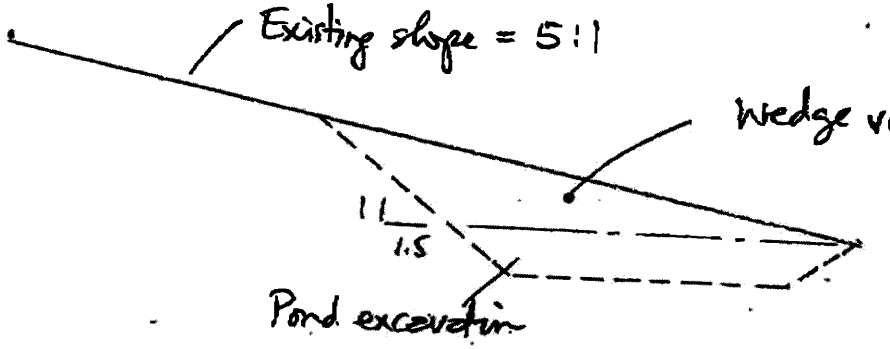
SCALE: 1" = 20'



Wedge volume $= (\frac{1}{2} bh)(L)$
$= (\frac{1}{2})(50)(12)(220)$
$= 66{,}000\ ft^3$
$= 2440\ yd^3$

Total volume of excavated material (available for backfilling shaft) → $(1920\ yd^3 + 2440\ yd^3)$ − topsoil

Topsoil → Assume 1.5' avg depth

$(64\ ft)(220\ ft)(1.5\ ft) = 21{,}120\ ft^3$
$= 780\ yd^3$

Total volume available to backfill shaft $= (1920\ yd^3 + 2440\ yd^3) - 780\ yd^3$
$= \underline{3580\ yd^3}$

Required shaft backfill = 20ft diameter by 450ft depth
$= 141{,}400\ ft^3$
$= \underline{5240\ yd^3}$

Offsite fill needed → $1660\ yd^3$

0027

From: <Steve_Rigby@blm.gov>
To: "Wayne Hedberg" <WAYNEHEDBERG@utah.gov>
Date: 4/27/2007 7:10 AM
Subject: Re: Crandall Canyon Shaft Water Pumping and Backfilling

CC: "David Darby" <DAVEDARBY@utah.gov>, "Dennis (WC) 4737 Ware" <dware@found...

Sounds like a good plan to me.

S. Rigby

C007/0038

"Wayne Hedberg" <WAYNEHEDBERG@utah.gov>
04/26/2007 05:16 PM

To: "Dennis (WC) 4737 Ware" <dware@foundationcoal.com>

cc: "jeff mckenzie" <Jeff_McKenzie@blm.gov>, <Stan_Perkes@blm.gov>, <Steve_Rigby@blm.gov>, "David Darby" <DAVEDARBY@utah.gov>, "Mary Ann Wright" <MARYANNWRIGHT@utah.gov>, "Pam Grubaugh-Littig" <PAMGRUBAUGHLITTIG@utah.gov>, "Pete Hess" <PETEHESS@utah.gov>

Subject: Re: Crandall Canyon Shaft Water Pumping and Backfilling

Dennis,
Thank you for the summary explaining the emergency safety situation at the shaft. We received the faxed settling basin design calculations and cross-sections prepared by Rich White of Earth Fax. We will evaluate this information and advise you ASAP if we have any questions or concerns. Division management has been advised of the situation and expressed their concurrence with my earlier verbal approval to move forward with your proposal to stabilize the situation.
We look forward to our continued communication and will provide onsite assistance and coordination as necessary during the shaft stabilization activities.

Wayne Hedberg
Permit Supervisor
Coal Regulatory Program
Division of Oil, Gas & Mining
(801)538-5286

>>> "Ware, Dennis (WC) 4737" <dware@foundationcoal.com> 4/26/2007 2:45 PM
>>>
Jeff and Wayne,

First, I want to thank both of you individually, as well as the BLM and the Division for your quick response and approval to move forward as we discussed by phone a few minutes ago and as I have briefly outlined below.

When we went on site at Crandall Canyon this morning about 7:00 a.m. we found that the loose material on the south side of the shaft has fallen into the shaft. Not only had this material (aprox. 10 to 15 yards) fallen into the shaft it also took out the water pump, the electrical pump cable, the well sounder and possibly some of the water pipe. It is unknown at this time if any of the pumping equipment can be salvaged. If it cannot be safely salvaged we will cut it at the surface and let it fall into the shaft. Because of the safety issues at the site we will not pump any more water at this time. When we discontinued pumping water last evening the water level was down 280 feet below the surface, therefore, there is about 150 feet of water remaining in the shaft (the water depth was originally at the 430 foot depth). As best as we can calculate, water is running into the shaft at an elevation approximately 130 feet below the surface and at a rate of 7 to 8 gallons per minute. At this inflow rate it is filling up the shaft at a rate of approximately 10,080 to 11,520 gallons or 4.3 to 4.9 feet per day. Since we will not be able to pump again without some major rework of the surface and safety platform we feel it is important to begin backfilling the shaft before the water refills the shaft again. We propose to use the material we remove from the pond which we will excavate to the west of the shaft as well as material we will haul from Hwy 6. We will backfill this fill material into the shaft up to an elevation of 130 feet below the surface or until the water column comes up to the top of the cement lined shaft (which is about 10 feet below the current surface) whichever occurs first. We will likely begin excavation of the pond and backfilling of the shaft at first light tomorrow. It will take about 1.5 to 2 days to excavate the pond and about the same amount of time to backfill the shaft to the level identified above. At this point we will shut down and wait to see how much water will settle out and can be discharged, any water that can not be discharged will be pumped into the pond for evaporation. At any rate, we will have time to talk further about how to deal with the water over the next few days or weeks. I will provide a progress report sometime tomorrow or Monday and will stay in close contact with you by phone.

As you know, Mr. Richard White of EarthFAX Engineering has designed the pond and the PE stamped design has been faxed to the Division SLC office. If the Division needs more information on the design before construction is complete please contact Richard at 801:561:1555, otherwise, we will provide an as-built when the pond is finished. It will take about 1.5 to two days to construct the pond.

Again thank you for your continued support on this important project.

Dennis Ware

Office 435-472-4737

Cell 435-650-2951